Movement Tracking System (MTS) Program Overview

Requirement:

"The Army needs a capability to track the location of vehicles, communicate with vehicle operators, and redirect movements based on battlefield requirements."

Approved MTS ORD, 14 Sep 98

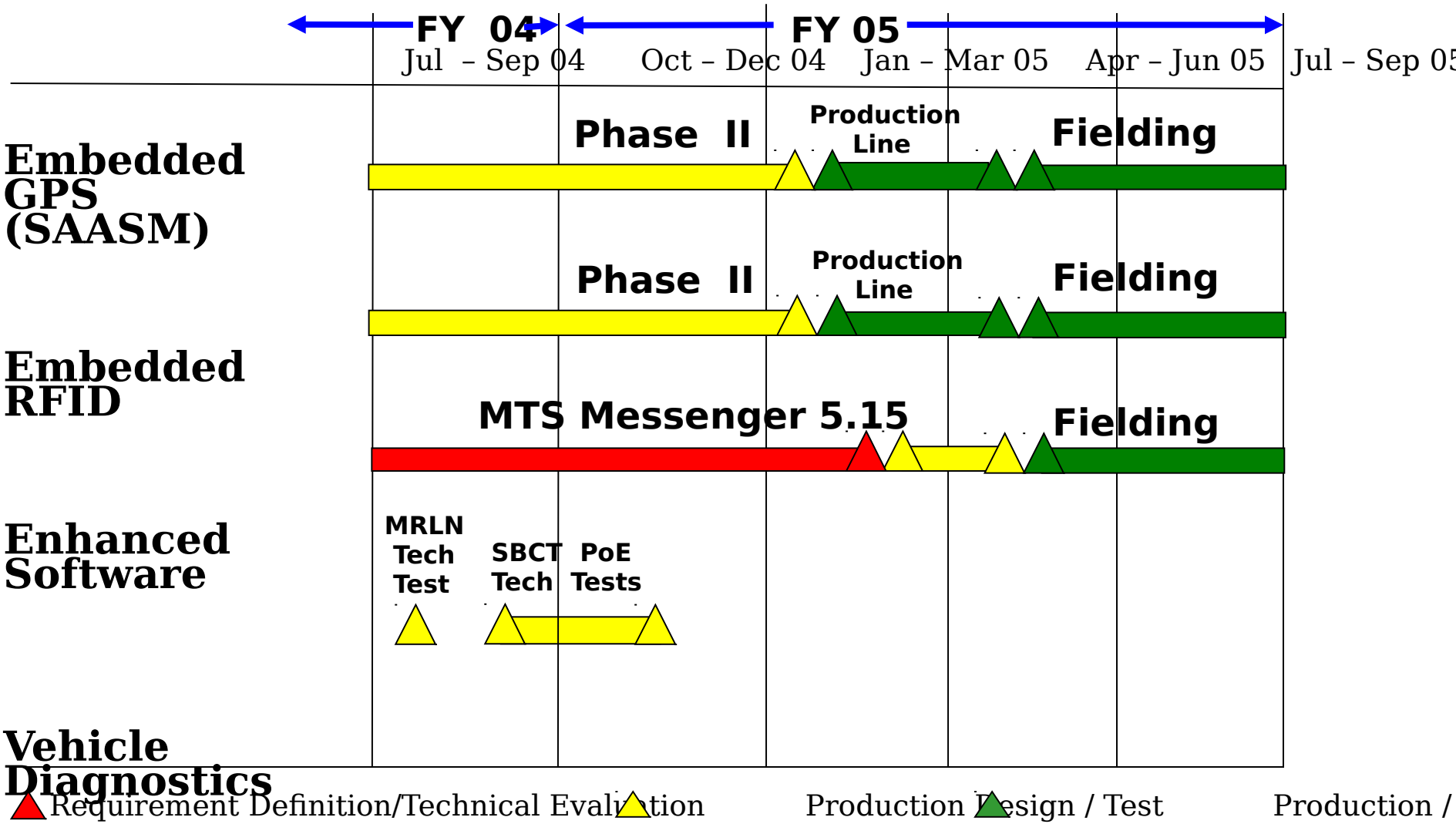
Current Capabilities

- Satellite Based Tracking and Communication System
- Military GPS
- Two-way Messaging
- Worldwide Coverage
- Positive Control, landline independent
- Capability to use multiple satellites
- Interfaces with ITV Server and JDLM

Desired Capabilities

- Capability to Interface with GCSS-Army, TC-AIMS II and BCS3
- Enhanced signal security
- Vehicle Diagnostics/prognostics (CLOE)
- Interface with FBCB2
- RFID

Movement Tracking System (MTS) P3I Schedule



17 Sep 04

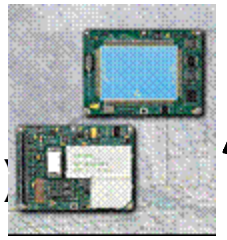
Movement Tracking System (MTS)
Embedded GPS - SAASM

Selective Availability Anti-Spoofing Module (SAASM) Integration Approach:

Phase I: Specification Definition & Evaluation COMPLETED

Phase II: JPO GPS First Article Test (FAT) of GB GRAM SAASM – PASSED

- Task Order with Comtech to embed GB GRAM SAASM Board into MTS Transceiver
- 702 cards on hand at Comtech; 526 due-in Apr 05
- EPG Test Report 15 Sep 04 – EMI not met (susceptibility) High Heat partially met; investigative work ongoing;



Phase III: Production and Fielding of Embedded GPS – SAASM projected for 3rd Qtr FY05.

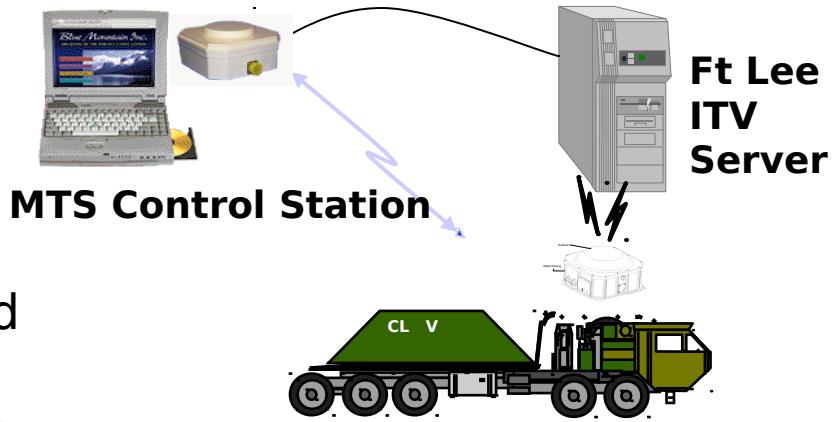
EMBEDDED GPS

Movement Tracking System (MTS) Embedded RFID

<u>Phase I</u> (Proof of Concept Demo Jun 02):

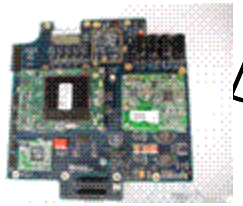
- RFID tags automatically interrogated and sent via MTS to populate ITV Training Server
- RFID tag data sent via MTS V2 and displayed on MTS CS in TOC, showing remote tracking of cargo on the move

COMPLETED



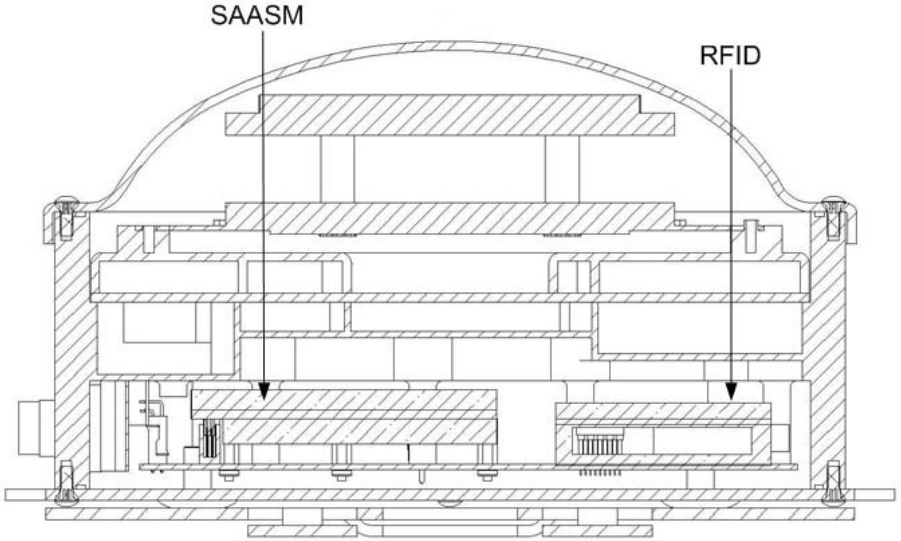
<u>Phase II</u> (Embedded RFID focus):

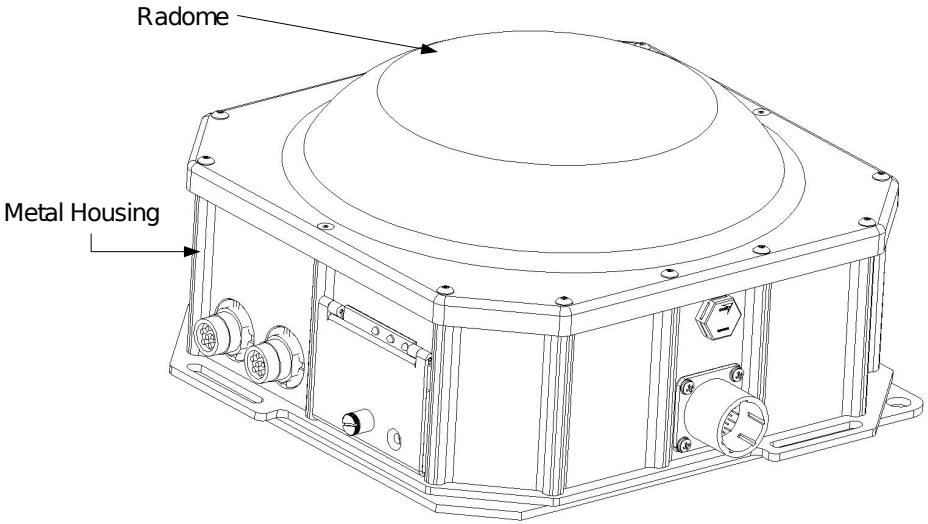
- Task Order with Comtech to embed Interrogator Board into MTS Transceiver – project Jan 05 completion
- Develop interfaces with Army ITV servers
- EPG testing completed – draft Oct 04 Test Report under review;

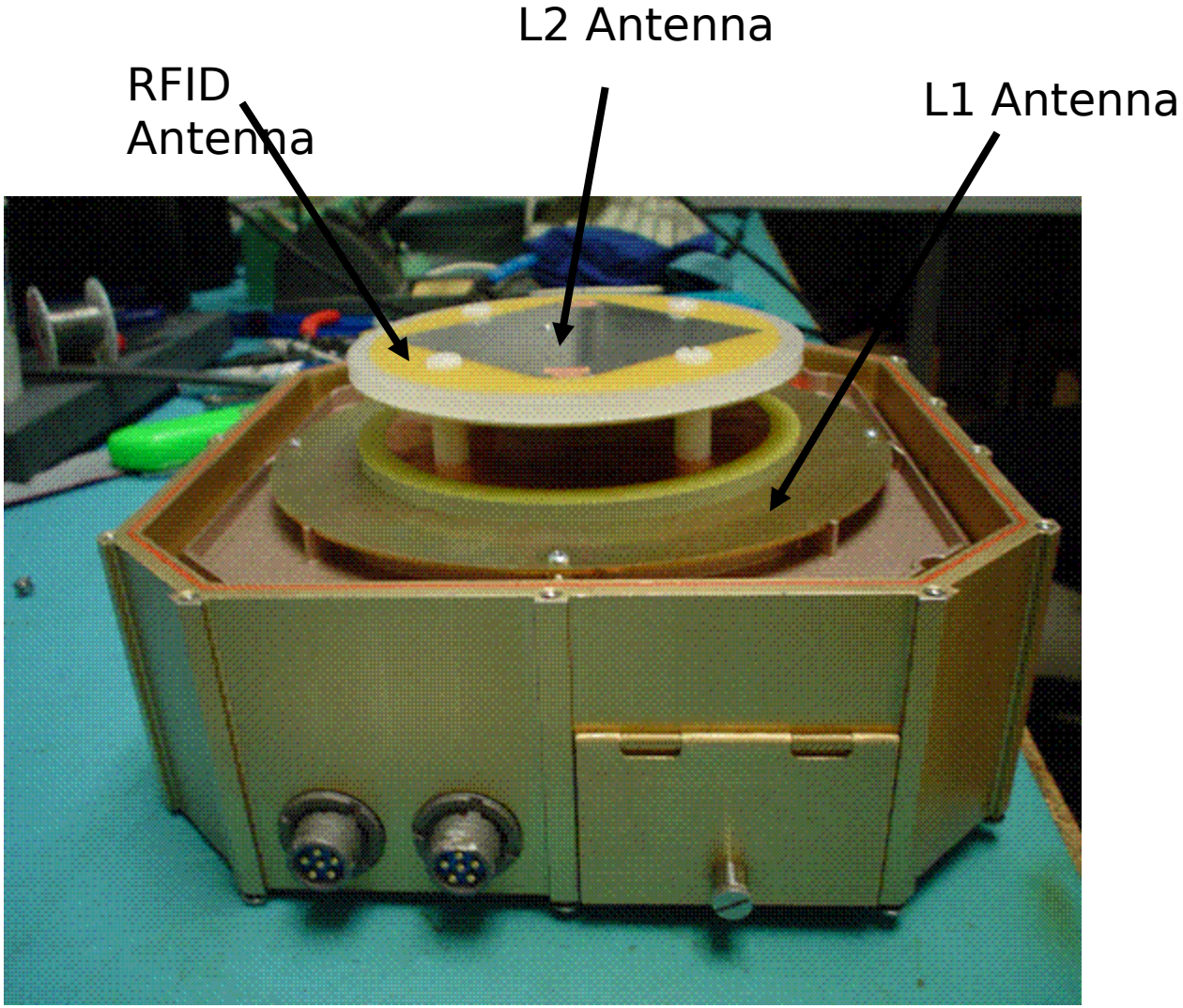


<u>Phase III</u> Production and Fielding of Embedded RFID projected for 3rd Qtr FY05

EMBEDDED RFID

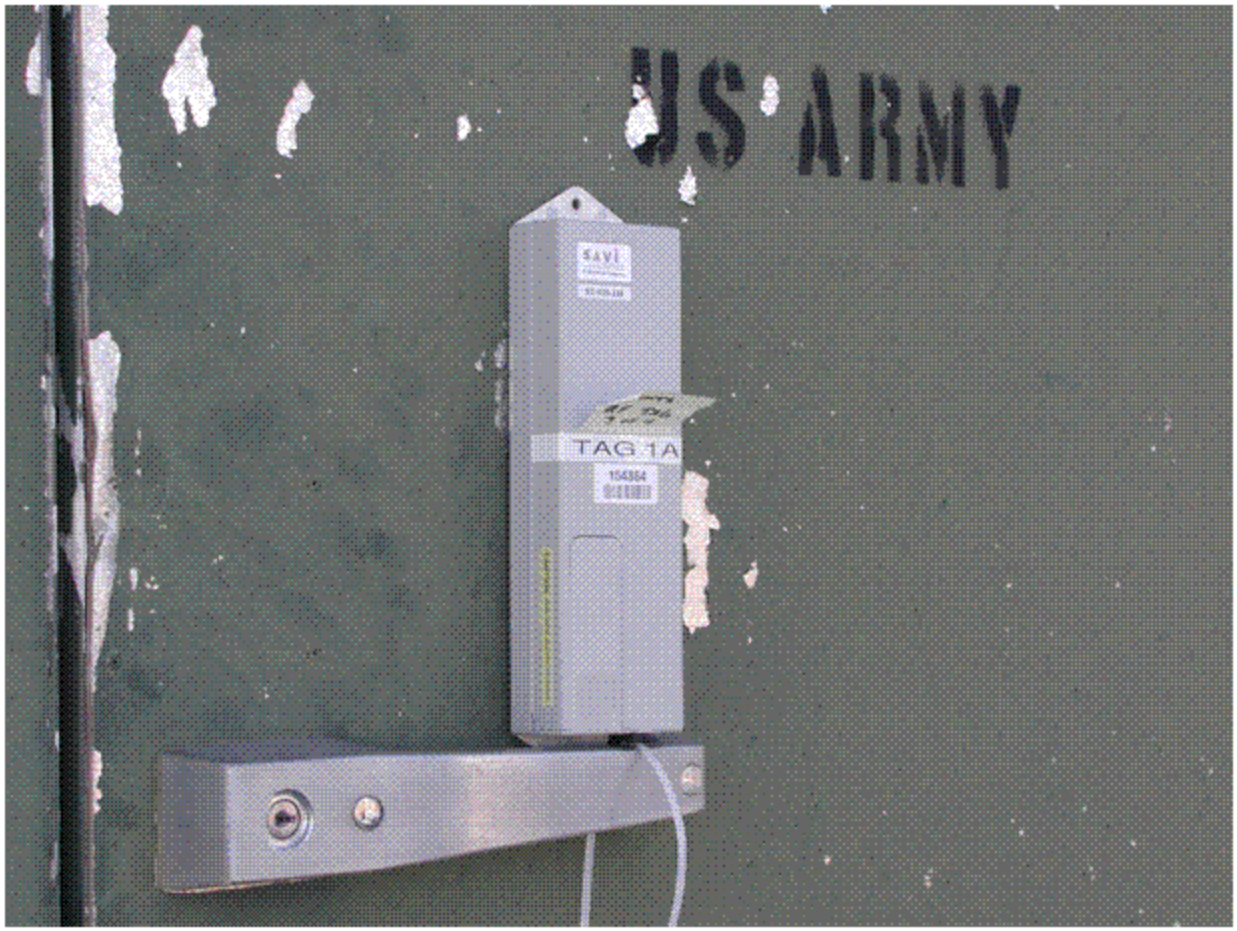

SAASM
RFID


Radome
Metal Housing


L2 Antenna
RFID
Antenna
L1 Antenna

GPS Module

RFID Module

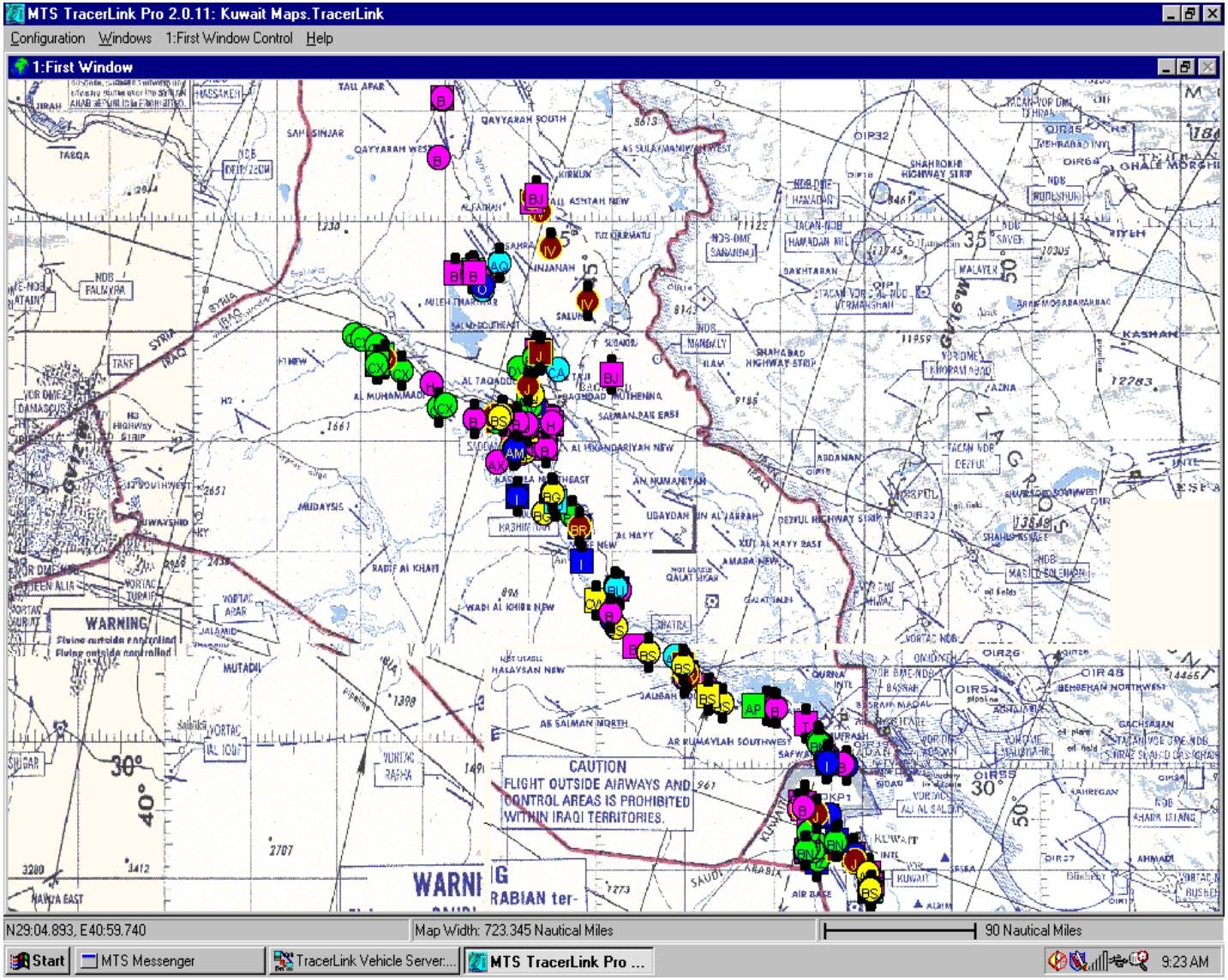

US ARMY
SAVI
TAG 1A

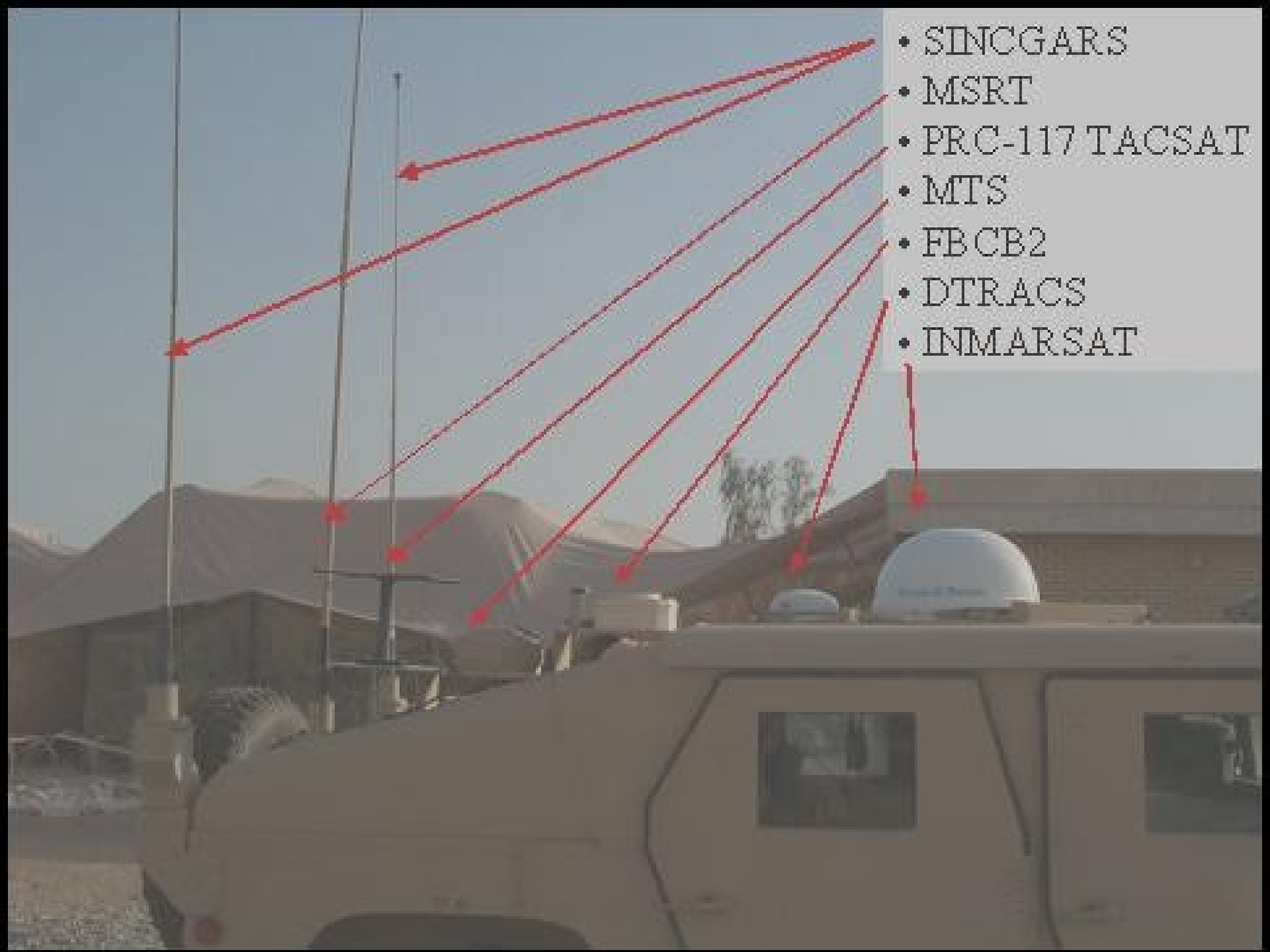
Movement Tracking System (MTS) Vehicle Diagnostics / Prognostics

SBCT Proof of Enablers (PoE) Demonstration Sep – Nov 04:

- Predictive Maintenance - Vehicle performance data collected for maintenance analysis and send via MTS
- Embedded Diagnostics & Prognostics using IETM's (Interactive Electronic Technical Manuals) integrated with MTS system
- Remote vehicle troubleshooting via MTS
- Integrate DT-3000 Computer into HMMWV, HEMTT, and FMTV

Movement Tracking System (MTS)
Operation OEF/OIF Movements




• SINCGARS
• MSRT
• PRC-117 TACSAT
• MTS
• FBCB2
• DTRACS
• INMARSAT

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